**Unit 1: Linear Systems**

**Warm-up Questions**

1. Solve Each Linear System using the method of substitution.  
   1. 2x + 3y = -1  
      x = 1 – y
   2. X + 2y = 3  
      5x + 4y = 8
2. Is (3, -5) the solution for the following linear system? Explain Why?  
     
   2x + 5y = -19  
   6y – 8x = 54

**Lesson 3: Investigate Equivalent Linear Relations and Linear Systems**

Investigate

What are equivalent linear relations?

1. On the same grid, graph the lines x + 2y = 4 and 2x + 4y = 8
   1. How are the graphs related?
   2. How are the equations related?
2. Without Graphing tell which two of the following are **equivalent linear equations.**

**Y – x + 5 = 0 y = 3x + 15 2y = 2x – 10**

**EQUIVALENT LINEAR RELATIONS ARE EQUATIONS THAT HAVE THE SAME GRAPH**